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Sheet 1 of 4

Substitute Form PTO-1449 (Modified)		U.S. Department of Commerce Patent and Trademark Office		Attorney's Docket No. 09531-016002	Application No. 10/031,005
<b>Information Disclosure Statement by Applicant</b> <small>(Use several sheets if necessary)</small> <small>(37 CFR §1.98(b))</small>		Applicant Gary L. Nelsestuen			
		Filing Date October 29, 2001	Group Art Unit 1646 1653 1656		

**U.S. Patent Documents**

Examiner Initial	Desig. ID	Patent Number	Issue Date	Patentee	Class	Subclass	Filing Date If Appropriate
HS	AA	5,093,317	03/03/92	Lewis et al.	514	12	
HS	AB	5,258,288	11/02/93	Wydro et al.	435	69.6	
HS	AC	5,288,629	02/22/94	Berkner	435	240,2	RECEIVED
HS	AD	5,504,064	04/02/96	Morrissey et al.	514	8	JUN 1 2 2002
HS	AE	5,516,640	05/14/96	Watanabe et al.	435	7.4	
HS	AF	5,580,560	12/03/96	Nicolaisen et al.	424	94.64	TECH CENTER 600/2900
HS	AG	5,788,965	08/04/98	Berkner et al.	424	94.64	
HS	AH	5,817,788	10/06/98	Berkner et al.	536	23.2	
HS	AI	5,824,639	10/20/98	Berkner	514	12	
HS	AJ	5,833,982	11/20/98	Berkner et al.	424	94.64	
HS	AK	5,837,843	11/17/98	Smirnov et al.	536	23.5	
HS	AL	5,847,085	12/08/98	Esmon et al.	530	381	
HS	AM	5,861,374	01/19/99	Berkner et al.	514	8	
HS	AN	6,017,882	01/25/00	Nelsestuen	514	12	

**Foreign Patent Documents or Published Foreign Patent Applications**

Examiner Initial	Desig. ID	Document Number	Publication Date	Country or Patent Office	Class	Subclass	Translation	
							Yes	No
HS	AO	0 296 413 A2	12/28/88	EPO	—	—		
HS	AP	0 354 504 A2	02/14/90	EPO	—	—		
HS	AQ	WO 99/20767	04/29/99	PCT	—	—		

**Other Documents (include Author, Title, Date, and Place of Publication)**

Examiner Initial	Desig. ID	Document
HS	AR	Arnljots et al., "Prevention of experimental arterial thrombosis by topical administration of active site-inactivated factor VIIa," <i>J. Vasc. Surg.</i> , 1997, 25(2):341-346
HS	AS	Bauer, "Treatment of factor VII deficiency with recombinant factor VIIa," <i>Haemostasis</i> , 1996, 26(Suppl. 1):155-158
HS	AT	Broze et al., "Monoclonal anti-human factor VII antibodies. Detection in plasma of a second protein antigenically and genetically related to factor VII," <i>J. Clin. Invest.</i> , 1985, 76:937-946
HS	AU	Choudhri et al., "Targeted Inhibition of Intrinsic Coagulation Limits Cerebral Injury in Stroke without Increasing Intracerebral Hemorrhage," <i>J. Exp. Med.</i> , 1999, 190:91-99

Examiner Signature

Date Considered

9-28-05

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Sheet 2 of 4

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Substitute Form PTO-1449 (Modified)	U.S. Department of Commerce Patent and Trademark Office	Attorney's Docket No. 09531-016002	Application No. 10/031,803
<b>Information Disclosure Statement by Applicant</b> (Use several sheets if necessary)		Applicant Gary L. Nelsestuen	RECEIVED JUN 1 2 2002
		Filing Date October 29, 2001	TECH CENTER 1600/2900 1646 1656
(37 CFR §1.98(b))			

**Other Documents (include Author, Title, Date, and Place of Publication)**

Examiner Initial	Desig. ID	Document
HS	AV	Christiansen et al., "Hydrophobic Amino Acid Residues of Human Anticoagulation Protein C that Contribute to its Functional Binding to Phospholipid Vesicles," <u>Biochemistry</u> , 1995, 34:10376-10382
HS	AW	Dackiw et al., "Prevention of endotoxin-induced mortality by antitissue factor immunization," <u>Arch. Surg.</u> , 1996, 131:1273-1278
HS	AX	Dahlback, "Inherited Thrombophilia: Resistance to Activated Protein C as a Pathogenic Factor of Venous Thromboembolism," <u>Blood</u> , 1995, 85:607-614
HS	AY	Esmon et al., "Isolation of a membrane-bound cofactor for thrombin-catalyzed activation of protein C," <u>J. Biol. Chem.</u> , 1982, 257:859-864
HS	AZ	Evans, Jr. and Nelsestuen, "Importance of <i>cis</i> -Proline 22 in the Membrane-Binding Conformation of Bovine Prothrombin," <u>Biochemistry</u> , 1996, 35:8210-8215
HS	AAA	Evans and Nelsestuen, "Importance of Cis-Proline 22 and the Aromatic Stack (Residues 41-45) for Prothrombin-Membrane Binding," <u>Protein Sci.</u> , 1996, 5(Suppl. 1):163, Abstract #606-S
HS	ABB	Felgner et al., "Lipofection: a highly efficient, lipid-mediated DNA-transfection procedure," <u>Proc. Natl. Acad. Sci. USA</u> , 1987, 84:7413-7417
HS	ACC	Fiore et al., "The biochemical basis for the apparent defect of soluble mutant tissue factor in enhancing the proteolytic activities of factor VIIa," <u>J. Biol. Chem.</u> , 1994, 269:143-149
HS	ADD	Freedman et al., "Identification of the phospholipid binding site in the vitamin K-dependent blood coagulation protein factor IX," <u>J. Biol. Chem.</u> , 1996, 271(27):16227-16236
HS	AEE	Furie and Furie, "The molecular basis of blood coagulation," <u>Cell</u> , 1988, 53:505-518
HS	AFF	Han et al., "Isolation of a protein Z-dependent plasma protease inhibitor," <u>Proc. Natl. Acad. Sci. USA</u> , 1998, 95:9250-9255
HS	AGG	He et al., "Expression and functional characterization of chimeras between human and bovine vitamin-K-dependent protein-S-defining modules important for the species specificity of the activated protein C cofactor activity," <u>Eur. J. Biochem.</u> , 1995, 227:433-440
HS	AHH	Hedner et al., "Recombinant Activated Factor VII in the Treatment of Bleeding Episodes in Patients with Inherited and Acquired Bleeding Disorders," <u>Transfus. Med. Rev.</u> , 1993, 7:78-83
HS	AII	Hope et al., "Production of Large Unilamellar Vesicles by a Rapid Extrusion Procedure. Characterization of Size Distribution, Trapped Volume and Ability to Maintain a Membrane Potential," <u>Biochem. Biophys. Acta</u> , 1985, 812:55-65
HS	AJJ	Hoskins et al., "Cloning and characterization of human liver cDNA encoding a protein S precursor," <u>Proc. Natl. Acad. Sci. USA</u> , 1987, 84:349-353
HS	AKK	Huang, <u>Biochemistry</u> , 1969, 8:344-352
HS	ALL	Humphries et al., "Chemical methods of protein synthesis and modification," <u>Curr. Opin. Biotechnol.</u> , 1991, 2(4):539-543
HS	AMM	Lu and Nelsestuen, "Dynamic Features of Prothrombin Interaction with Phospholipid Vesicles of Different Size and Composition: Implications for Protein - Membrane Contact," <u>Biochemistry</u> , 1996, 35:8193-8200
HS	ANN	Lu and Nelsestuen, "The prothrombinase reaction: "mechanism switching" between Michaelis-Menten and non-Michaelis-Menten behaviors," <u>Biochemistry</u> , 1996, 35:8201-8209
HS	AOO	Matsubara et al., "A receptor tyrosine kinase, Sky, and its ligand Gas 6 are expressed in gonads and support primordial germ cell growth or survival in culture," <u>Dev. Biol.</u> , 1996, 180:499-510

Examiner Signature <i>HS</i>	Date Considered 9-28-05
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Substitute Form PTO-1449 (Modified)		U.S. Department of Commerce Patent and Trademark Office	Attorney's Docket No. 09531-016002	Application No. 10/031,005
<b>Information Disclosure Statement</b> by Applicant (Use several sheets if necessary)  (37 CFR §1.98(b))		Applicant	JUN 12 2002	
		Gary L. Nelsestuen	Filing Date October 29, 2001	Group 1646 1656 TECH CENTER 1600/2900

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Other Documents (include Author, Title, Date, and Place of Publication)		
Examiner Initial	Desig. ID	Document
HS	APP	Mayer et al., "Prothrombin Association with Phospholipid Monolayers," <u>Biochemistry</u> , 1983, 22(2):316-321
HS	AQQ	McDonald et al., "Comparison of Naturally Occurring Vitamin K-dependent Proteins: Correlation of Amino Acid Sequences and Membrane Binding Properties Suggests a Membrane Contact Site," <u>Biochemistry</u> , 1997, 36:5120-5127
HS	ARR	McDonald et al., "Ionic Properties of Membrane Association by Vitamin K-Dependent Proteins: The Case for Univalency," <u>Biochemistry</u> , 1997, 36(50):15589-15598
HS	ASS	Morrissey et al., "Quantitation of Activated Factor VII Levels in Plasma Using a Tissue Factor Mutant Selectively Deficient in Promoting Factor VII Activation," <u>Blood</u> , 1993, 81(3):734-744
HS	ATT	Muir et al., "The chemical synthesis of proteins," <u>Curr. Opin. Biotechnol.</u> , 1993, 4(4):420-427
HS	AUU	Nakagaki et al., "Initiation of the Extrinsic Pathway of Blood Coagulation: Evidence for the Tissue Factor Dependent Autoactivation of Human Coagulation Factor VII," <u>Biochemistry</u> , 1991, 30:10819-10824
HS	AVV	Nelsestuen and Suttie, "Properties of Asialo and Aglycoprothrombin," <u>Biochem. Biophys. Res. Commun.</u> , 1971, 45:198-203
HS	AWW	Nelsestuen et al., "Equilibria Involved in Prothrombin- and Blood Clotting Factor X-Membrane Binding," <u>Biochemistry</u> , 1977, 16(19):4164-4171
HS	AXX	Nicolaes et al., "A prothrombinase-based assay for detection of resistance to activated protein C," <u>Thromb. Haemost.</u> , 1996, 76:404-410
HS	AYY	Nicolaisen et al., "Immunological aspects of recombinant factor VIIa (rFVIIa) in clinical use," <u>Thromb. Haemost.</u> , 1996, 76:200-204
HS	AZZ	Perera et al., "Trans-cis Isomerization of Proline 22 in Bovine Prothrombin Fragment 1: A Surprising Result of Structural Characterization," <u>Biochemistry</u> , 1998, 37:10920-10927
HS	AAAA	Persson and Nielsen, "Site-directed mutagenesis but not gamma-carboxylation of Glu-35 in factor VIIa affects the association with tissue factor," <u>FEBS Letters</u> , 1996, 385(3):241-243
HS	ABBB	Petersen et al., "Quenching of the amidolytic activity of one-chain tissue-type plasminogen activator by mutation of lysine-416," <u>Biochemistry</u> , 1990, 29:3451-3457
HS	ACCC	Ratcliffe et al., "The Importance of Specific $\gamma$ -Carboxyglutamic Acid Residues in Prothrombin," <u>J. Biol. Chem.</u> , 1993, 268(32):24339-24345
HS	ADDD	Resnick and Nelsestuen, "Prothrombin-Membrane Interaction. Effects of Ionic Strength, pH, and Temperature," <u>Biochemistry</u> , 1980, 19(13):3028-3033
HS	AEEE	Rezaie and Esmon, "The function of calcium in protein C activation by thrombin and the thrombin-thrombomodulin complex can be distinguished by mutational analysis of protein C derivatives," <u>J. Biol. Chem.</u> , 1992, 267:26104-26109
HS	AFFF	Schmidel et al., "Organization of the Human Protein S Genes," <u>J. Biol. Chem.</u> , 1990, 29(34):7845-7852
HS	AGGG	Schulman et al., "Feasibility of using recombinant factor VIIa in continuous infusion," <u>Thromb. Haemost.</u> , 1996, 75(3):432-436
HS	AHHH	Schwalbe et al., "Protein Structural Requirements and Properties of Membrane Binding by $\gamma$ -Carboxyglutamic Acid-containing Plasma Proteins and Peptides," <u>J. Biol. Chem.</u> , 1989, 264:20288-20296
HS	AIII	Seshadri et al., "Differences in the Metal Ion Structure between Sr- and Ca-Prothrombin Fragment 1," <u>Biochemistry</u> , 1994, 33:1087-1092

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(Modified)

U.S. Department of Commerce  
Patent and Trademark Office

Information Disclosure Statement  
by Applicant  
(Use several sheets if necessary)

(37 CFR §1.98(b))

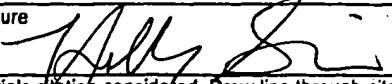
Attorney's Docket No.  
09531-016002Application No.  
10/031,005Applicant  
Gary L. NelsestuenFiling Date  
October 29, 2001

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Other Documents (include Author, Title, Date, and Place of Publication)		
Examiner Initial	Desig. ID	Document
JS	AJJJ	Shah et al., "Manipulation of the membrane binding site of vitamin K-dependent proteins: Enhanced biological function of human factor VII," <i>Proc. Natl. Acad. Sci. USA</i> , 1998, 95(8):4229-4234
JS	AKKK	Shen et al., "Enhancing the Activity of Protein C by Mutagenesis to Improve the Membrane-Binding Site: Studies Related to Proline 10," <i>Biochemistry</i> , 1997, 36(51):16025-16031
JS	ALLL	Shen et al., "Enhancement of Human Protein C Function by Site-directed Mutagenesis of the $\gamma$ -Carboxyglutamic Acid Domain," <i>J. Biol. Chem.</i> , 1998, 273(47):31086-31091
JS	AMMM	Smirnov et al., "A Chimeric Protein C Containing the Prothrombin Gla Domain Exhibits Increased Anticoagulant Activity and Altered Phospholipid Specificity," <i>J. Biol. Chem.</i> , 1998, 273(15):9031-9040
JS	ANNN	Sorensen et al., "Incorporation of an active site inhibitor in factor VIIa alters the affinity for tissue factor," <i>J. Biol. Chem.</i> , 1997, 272(18):11863-11868
JS	AOOO	Thariath et al., "Highly conserved residue arginine-15 is required for the $Ca^{2+}$ -dependent properties of the $\gamma$ -carboxyglutamic acid domain of human anticoagulation Protein C and activated Protein C," <i>Biochem. J.</i> , 1997, 322:309-315
JS	APPP	Thomsen et al., "Pharmacokinetics of recombinant factor VIIa in the rat - a comparison of bio-, immuno- and isotope assays," <i>Thromb. Haemost.</i> , 1993, 70(3):458-464
JS	AQQQ	Vallette et al., "Construction of mutant and chimeric genes using the polymerase chain reaction," <i>Nucleic Acids Res.</i> , 1989, 17(2):723-733
JS	ARRR	Vrana et al., "Expression of tissue factor in tumor stroma correlates with progression to invasive human breast cancer: paracrine regulation by carcinoma cell-derived members of the transforming growth factor beta family," <i>Cancer Res.</i> , 1997, 56:5063-5070
JS	ASSS	Weber et al., "Modifications of Bovine Prothrombin Fragment 1 in the Presence and Absence of $Ca(II)$ Ions," <i>J. Biol. Chem.</i> , 1992, 267(7):4564-4569
JS	ATTT	Wei et al., "Kinetic and Mechanistic Analysis of Prothrombin-Membrane Binding by Stopped-Flow Light Scattering," <i>Biochemistry</i> , 1982, 21:1949-1959
JS	AUUU	Welsch et al., "Chemical Modification of Prothrombin Fragment 1: Documentation of Sequential, Two-Stage Loss of Protein Function," <i>Biochemistry</i> , 1988, 27:4933-4938
JS	AVVV	Welsch and Nelsestuen, "Amino-terminal alanine functions in a calcium-specific process essential for membrane binding by prothrombin fragment 1," <i>Biochemistry</i> , 1988, 27:4939-4945
JS	AWWW	Yan et al., "Characterization and Novel Purification of Recombinant Human Protein C from Three Mammalian Cell Lines," <i>Bio/Technology</i> , 1990, 8:655-661
JS	AXXX	Zhang et al., "Role of Individual $\gamma$ -Carboxyglutamic Acid Residues of Activated Human Protein C in Defining its In Vitro Anticoagulant Activity," <i>Blood</i> , 1992, 80(4):942-952
JS	AYYY	Zhang et al., "The Contributions of Individual $\gamma$ -Carboxyglutamic Acid Residues in the Calcium-dependent Binding of Recombinant Human Protein C to Acidic Phospholipid Vesicles," <i>J. Biol. Chem.</i> , 1993, 268(16):12040-12045
JS	AZZZ	Zwaal et al., "Lipid-protein interactions in blood coagulation," <i>Biochimica et Biophysica Acta</i> , 1998, 1376:433-453

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Sheet 1 of 1

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U.S. Department of Commerce  
Patent and Trademark Office

Attorney's Docket No.  
09531-016002

Application No.  
10/031,005

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(37 CFR §1.98(b))

Applicant  
Gary L. Nelsestuen

Filing Date  
October 29, 2001

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	AI						
	AJ						
	AK						

**Foreign Patent Documents or Published Foreign Patent Applications**

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							Yes	No
AS	AL	WO 88/10295	12/29/88	PCT	—	—		
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	AO							

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